



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/020,930 | 12/19/2001 | Sang-Rok Lee | 1143.41013X00 | 9887 |

20457 7590 07/02/2003

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER

WOODWARD, ANA LUCRECIA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1711

L1

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 12/19/01
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-12 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-12 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☒ All ☐ Some* ☐ None of the:

☒ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____

☐ Copies of the certified copies of the priority documents have been received

in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the basis upon which the recited amounts are determined is not apparent.

In claim 1, no difference is seen between the EPM and EPR copolymers since both are copolymers of ethylene and propylene. The same issue is also seen between EPR-g-MA and EPM-g-MA.

In claim 1, line 9, the "arylmethacrylate" is not understood.

In claim 1, do applicants intend copolymers (as opposed to unreacted monomers) for the recited MBS, EEA, SBR and EVOH?

In claim 1, the generic "various thermoplastic elastomers and plastomers" renders the metes and bounds of the Markush group indefinite as to its membership.

In claims 1, 5 and 10, "or mixtures thereof" constitutes improper Markush group format.

In claim 1, it is unclear as to whether "nylon plasticizer" denotes a nylon which is a plasticizer or a plasticizer for nylon.

In claim 1, it is unclear as to whether "nylon thickener" denotes a nylon which is a thickener or a thickener for nylon.

In claim 1, component E is generic to and does not distinguish over the "all-acrylic core-shell rubber" defining component B. Accordingly, components B and E read on one and the same core-shell rubber.

Art Unit: 1711

In claim 1, no distinction can be seen between component D and the maleic anhydride copolymers defining component B. Accordingly, components B and D read on one and the same entity.

In claim 2, "or combinations thereof" constitutes improper Markush group format.

In claim 3, line 5, "copolymer" is queried.

In claim 3, do applicants intend copolymers (as opposed to unreacted monomers) for the "acrylonitrile-ethylenepropylene-styrene" and "acrylonitrile-styrene-alkylacrylate"?

In claim 3, it is unclear as to whether "the copolymer" is referring to the polyamide copolymer by itself or to the "copolymer blended or copolymerized".

In claim 6, the metes and bounds of "polyfunctional" are indefinite.

In claim 9, it is unclear what is meant by "reaction monomer".

In claim 12, are applicants claiming the mixture of a fuel tube and a hose?

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 5,179,164 (Lausberg et al) in view of U.S. 5,317,059 (Chundury et al).

Art Unit: 1711

Lausberg et al disclose molding compositions comprising

- A) from 10 to 89.5 parts by weight of one or more polypropylene homopolymers and/or copolymers,
- B) from 10 to 89.5 parts by weight of one or more polyamides,
- C) from 0.5 to 30 parts by weight of an ethylene copolymer as an adhesion promoter,
- D) from 0 to 30 parts by weight of an impact modifier and
- E) from 0 to 60 parts by weight of additives.

In table 3, patentees set forth various compositions which meet the requirements of the present claims with respect to components A, B, D and E and their contents.

In essence, the disclosure of Lausberg et al differs from the presently claimed invention in not expressly exemplifying the use of a plasticizer. It is maintained, however, that it would have been obvious to one having ordinary skill in the art to have utilized a plasticizer for its expected additive effect because plasticizers are disclosed as suitable additives at column 7, line 54. Accordingly, absent evidence of unusual or unexpected results, no patentability can be seen in the presently claimed invention.

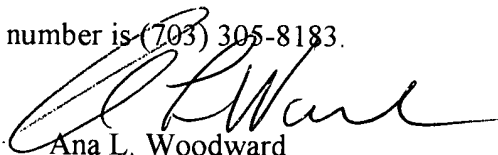
As to claim 12, it is maintained that it would have been obvious to one having ordinary skill in the art to have prepared a tube or hose from Lausberg et al's composition. This is because it is known to process similar-such polymer compositions into shaped articles by blow-molding, etc. as taught by Chundury et al.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (703) 308-2401. The examiner can normally be reached on Monday-Friday (8:30-5:00).

Art Unit: 1711

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-8183.



Ana L. Woodward

Examiner

Art Unit 1711

AW

June 25, 2003